

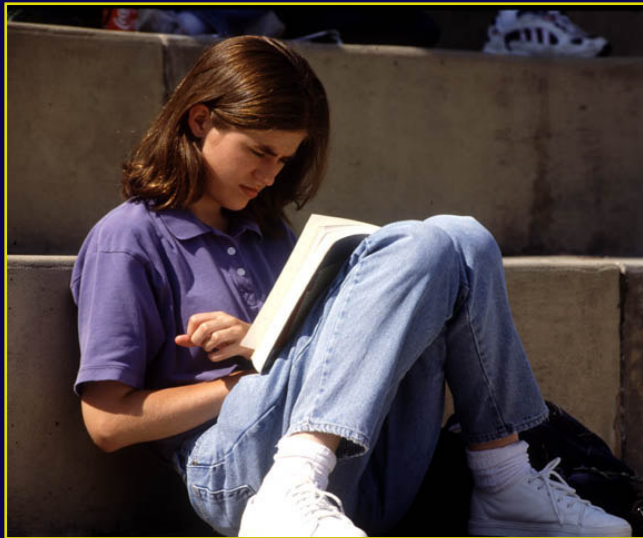


# Georgia Tech Campus Update

President G. Wayne Clough

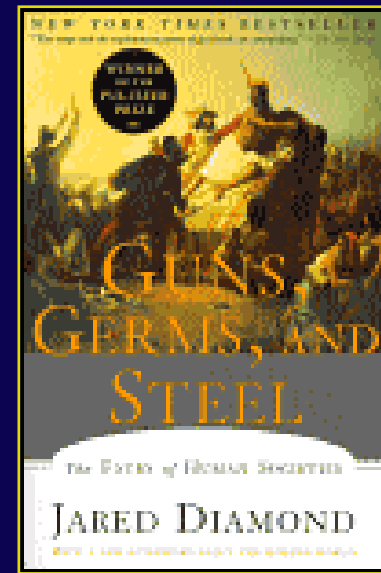
Georgia Tech Foundation  
June 3, 2006

# Freshmen embrace new programs



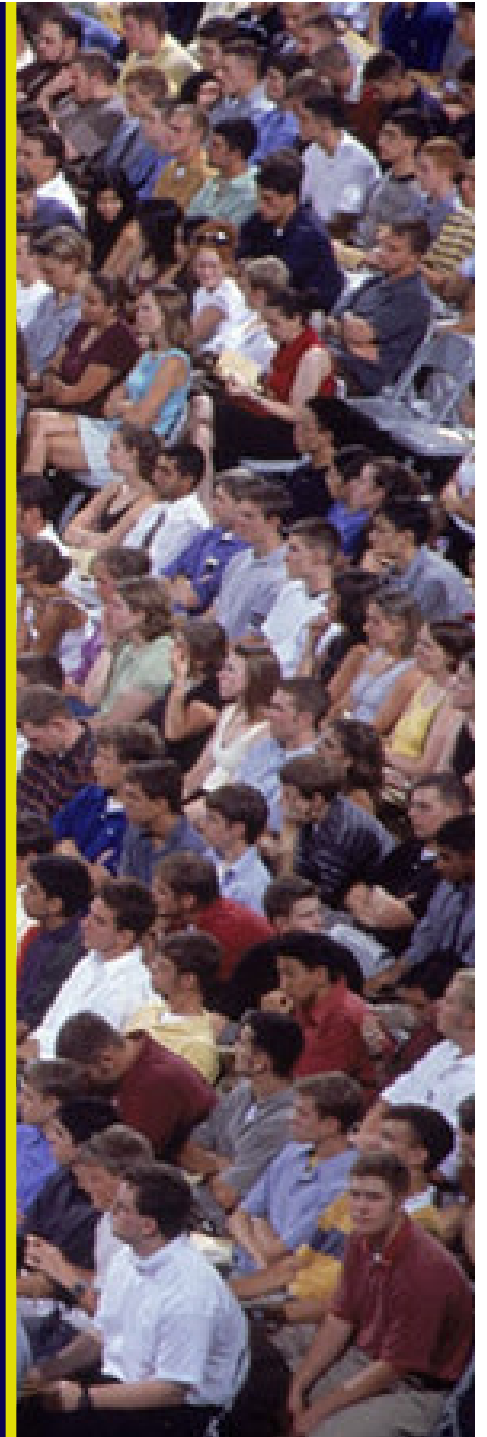
250 additional freshmen will arrive in June for a new summer session.

New summer reading program features *Guns, Germs & Steel*. Students will hear a lecture on the book in GT1000 and participate in small discussion groups with faculty.



# Admissions

- 2,700 freshmen paid deposits, but will lose some in “summer melt”
- 60% from Georgia; 40% from outside the state
- Big gainers:
  - ▷ College of Sciences up 44%
  - ▷ Ivan Allen College up 20%
  - ▷ Hispanics up 14%
  - ▷ Women make up 31% of the class



# Tech offers first music degree



Jamming with a robotic percussionist.

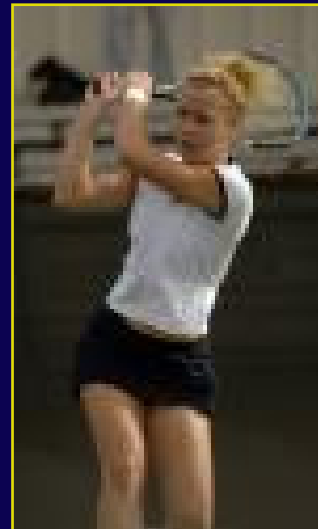
Tech will begin offering an M.S. degree in music technology, pending BOR approval. Will begin with emphasis in computer music research and engineering, then develop additional areas of emphasis.

# Spring sports

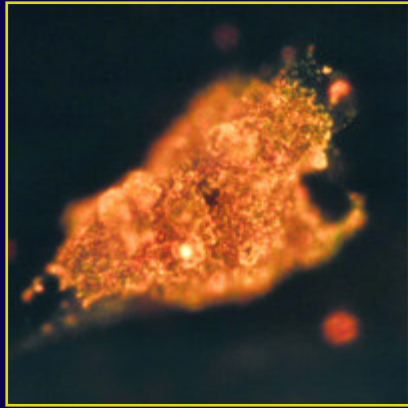
Baseball and golf teams win berths in NCAA Tournaments now underway.



Softball, women's tennis compete in post-season NCAA play. Tennis team makes it to the quarter-finals, farthest in Tech history.

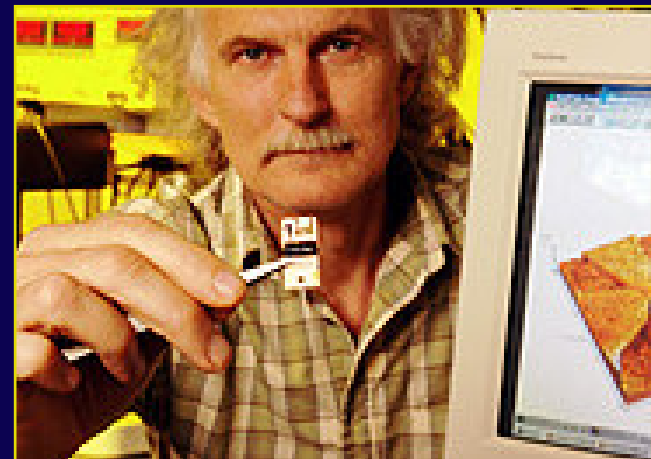


# Nanotechnology opens new doors



Gold nanorods engineered to bond to cancer cells not only reflect light, allowing cancer to be detected, but also absorb laser light, enabling cancer cells to be destroyed with half the energy required to kill healthy cells.

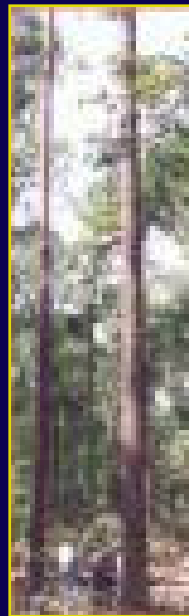
Thin layers of graphite – eventually as thin as 10 atoms – could be the foundation for nanoscale electronic devices that manipulate electrons as waves, much like light, to be energy efficient .



# Leading the way in energy

- Over \$15 million annual research

- ▷ Photovoltaics
- ▷ Combustion
- ▷ Lighting technology
- ▷ Fuel cells
- ▷ Biofuels
- ▷ Electric distribution



- Southern Pine to Ethanol (SPTE)

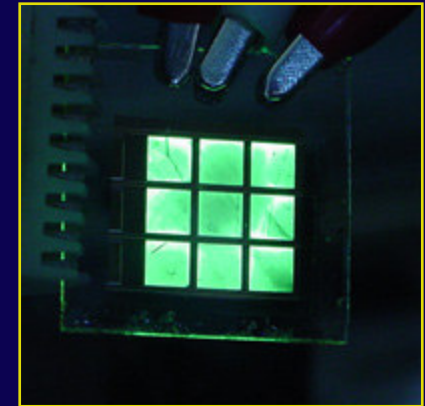
- ▷ Negative CO<sub>2</sub> emissions
- ▷ Costs < \$.80 to produce
- ▷ Conventional vehicles can burn mixed with gasoline
- ▷ Would offset declining forest products industry



# New international research partners



Joint research unit between GT Lorraine and Centre National de la Recherche for telecommunications and developing of new materials.



Belgian pharma/ chemical giant Solvay: \$3 million partnership with Center for Photonics and Electronics for research on organic light-emitting diodes (LEDs).

GTRI Ireland to focus on digital media, radio frequency ID, biotechnology and energy.



# Economic Impact Study released

BellSouth CEO Duane Ackerman and Southern Company CEO David Ratcliffe



join President Clough in presenting the study.

“Georgia Tech has provided Southern Company, the State of Georgia, and the Southeast with a great resource for innovation, qualified graduates, and research. It is in our best interest to keep Georgia Tech competitive and help all our state research universities achieve the flexibility they need to compete with their peers across the world.”

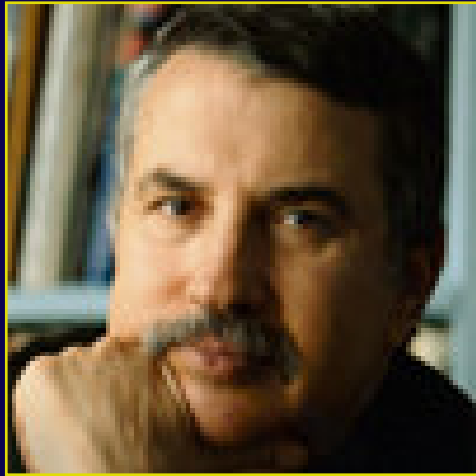
David Ratcliffe



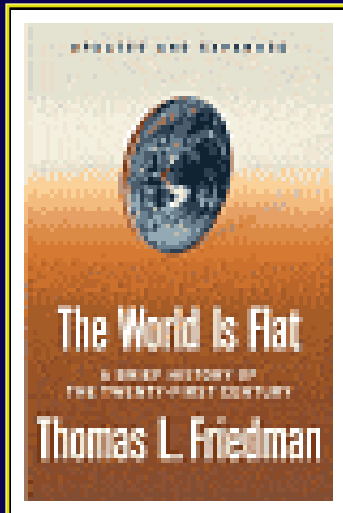
# State government/BOR

- Governor signs budget into law:
  - ▷ \$38 million for Nanotechnology Research Center
  - ▷ \$4.9 million to renovate Old CE Building
  - ▷ \$5 million for ATDC seed fund
  - ▷ \$5 million for nanotech infrastructure
- Board of Regents adopts “guaranteed” tuition
- Chancellor visits campus May 2

# Tech has the “right stuff”



New edition of *The World is Flat* features Georgia Tech and lauds the College of Computing’s transformation of its undergraduate program around “threads.”



“What the Georgia Tech model recognizes is that the world is increasingly going to be operating off of the flat-world platform, with its tools for all kinds of horizontal collaboration.”



Tech  
Georgia  
of  
rise  
The



# Rankings strengthen

- Among top 10 public universities
- Engineering in the top 5
  - ▷ 8 of 11 disciplines in the top 10
  - ▷ Industrial & Systems Engineering #1 for 16 years
- Sciences improve
  - ▷ Chemistry and biochemistry cracks top 25
  - ▷ Discrete math and combinations is #7
  - ▷ Applied mathematics is #14
- Computing moves up to # 11
  - ▷ Computer theory ranks #9
- College of Management moves from 50s in 2003 to low 30s
- Ivan Allen College
  - ▷ Information technology management is # 8
  - ▷ Environmental policy and management is #11

## A decade of progress:

	<u>1994</u>	<u>2005</u>
Academic faculty	732	940
National Academy members	12	30
Endowed chairs	36	117
Centers of excellence	4	17
Research expenditures	\$212 M	\$425 M
NIH grants	\$3 M	\$19 M
NSF CAREER Awards	7*	107

\* 1995: first year CAREER Awards were presented



# 4 campuses on 3 continents and more

Georgia Tech Atlanta



Georgia  
Tech  
Lorraine



Georgia Tech Savannah



Georgia Tech  
Singapore

Coming:  
Shanghai  
India?



# Signals of change



# At the student level

- Retention of first year students has increased from 85% in 1994 to 92% in 2005.
- Graduation rate has increased from 69% in 1994 to 76% in 2005.
- The number of students studying abroad has quadrupled since 1994.
- A third of undergraduates study abroad; over 40 percent engage in structured research activities.
- Georgia Tech has awarded as many Ph.D. degrees since 1994 as in all of its history prior to 1994.

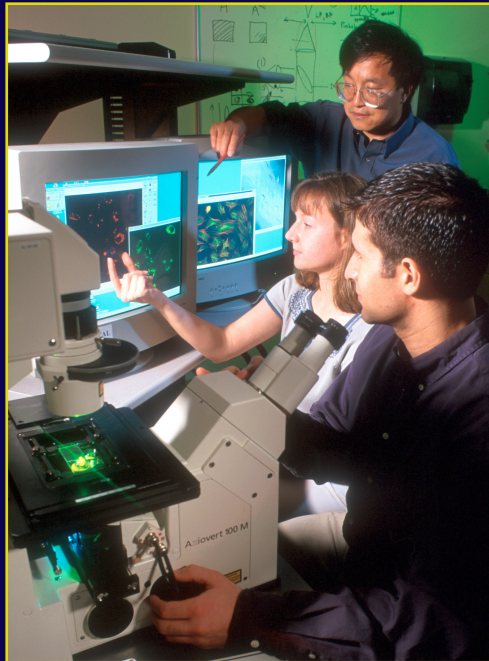
# Through innovative new degrees

- Bioinformatics
- Human-computer interaction
- Quantitative and computational finance
- Digital media
- Music technology

“The professional master’s degree program produces students who understand science and business and the inherent connection between the two disciplines in industry.”

Lois A. Dimpfel, IBM

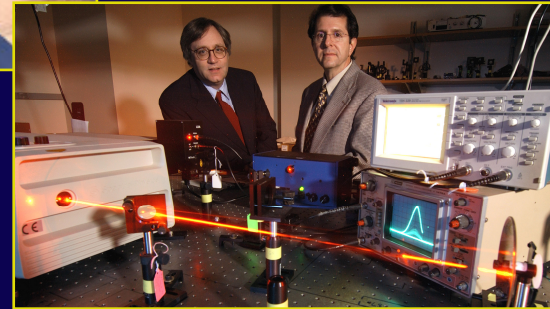
# Via emergence of new interdisciplinary centers of excellence



National Center of  
Cancer  
Nanotechnology  
Excellence



Center for Organic  
Photonics and  
Electronics



Center for  
the Study of  
Systems  
Biology





# Through more dynamic economic impact

- From 1987 to 1994, Georgia Tech spun off 8 new companies; from 1995 to 2005, Tech spun off 76 new companies.
- In 1994, Tech was awarded 19 patents; in 2005, Tech was awarded 43 patents, 9<sup>th</sup> among research universities nationwide.



Advanced Technology Development Center



Technology Enterprise Park

# National priorities converge on Georgia Tech's "sweet spot"

- The nation's economic prosperity depends as never before on its ability to generate and harness the latest in scientific and technological advances.
- Tech's research thrusts, from energy to nano-technology, align with national initiatives.
- The global university is expected to be one of the transformative institutions of the 21<sup>st</sup> century.

“In a significant sign of the growth of interdisciplinary engineering approaches – and of the profile of the discipline of engineering itself – Harvard University... announced plans for the creation of the School of Engineering and Applied Sciences... As Lawrence H. Summers, president of Harvard, said in a statement: ‘It marks our recognition of the profound importance of technology and applied sciences for every aspect of our society.’”

*Inside Higher Education*  
May 25, 2006



“Officials at Columbia University say they are moving ahead with plans for the largest university campaign so far, a push to raise \$4 billion over seven years... Columbia has also shown a new forcefulness in recruiting faculty members... [President Lee C. Bollinger] said, ‘You give me the names of the 10 best people in any field, and I know I can recruit 2 or 3 of them to Columbia.’”

*New York Times*  
May 21, 2006



Is  
\$1 billion  
enough?